

BOOK REVIEW

Ashish Lahiri, *Radhanath Sikdar Beyond the Peak*, Bio-Chitra, Kolkata, 2010, 48 pages, Rs 45.

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Radhanath Sikdar(1813-1870) was an Indian pioneer in Geodesy. His name is associated with establishing Mount Everest as the world's highest peak. Less known is his laying the foundation of scientific analysis of Indian meteorological data. However the magnitude and rigour of his scientific contributions remains neglected. This small memoir brings out, in an admirable fashion, the different facets of his professional and personal life.

A student of Hindu College, Calcutta, which produced several scholars and social reformers, Radhanath was attracted to both Humanities and Sciences. The college did not have a proper infrastructure for instruction in science at that time. So for his work in the Survey of India, he had to teach himself mathematics including spherical trigonometry and physics though he was initiated into these fields by Ross and Tytler at the Hindu College.

He worked from 1832 to 1862 in the Survey, in the later years as the Chief Computer. In 1852 he was given the additional charge as Superintendent of the newly created Meteorological Observatory. The height of Everest, then styled Peak XV, was measured from many stations. Radhanath measured it with a theodolite from at least six stations from distances in the neighbourhood of 150 miles. He realized that atmospheric refraction affected the readings and developed methods for the necessary corrections. This was in addition to his command over computational techniques and spherical trigonometry which was acknowledged by some of his British supervisors including Col. Everest.

His contributions in Indian meteorology were equally impressive. He introduced the system of hourly readings and daily as well as monthly reporting. He developed methods for correcting for thermal expansion of the brass scale and

mercury of the barometers—— methods not available in India at that time. This work was instrumental in bringing out a comprehensive report on the climate of Calcutta that compiled and analysed meteorological data collected from 1853. The surveying manuals and computational tables authored by him were indispensable for Indian Surveys throughout the nineteenth century.

A rare honour was bestowed upon him in 1864 by the Society of Natural History, Bavaria, affiliated to the German Philosophical Society, when he was made a Corresponding Member. But he did not receive due recognition in India. His work on Everest was mentioned only thrice in Keay's book "The Great Arc". Part of his seminal work in Indian meteorology was credited to an Englishman; furthermore, in later publications including the Centenary Volume on Weather Studies in India (1875 -1975) his name finds no mention.

This brings up the topic of Colonial Science in India and some of its aspects. First, our rulers did not believe that Indians are capable of doing hard science. And most of the early British bosses of the Surveys were not ready to acknowledge the contributions of the natives. Relevant here is a general observation, valid even today, that science and bureaucracy do not mix well.

Radhanath overcame the obstacles through determination, hard work, concern for precision and accuracy and his ability to innovate. In personal life, he showed the courage of his convictions when he refused to marry a girl of eight and when he violated the custom of not eating beef evidently for the sake of sturdiness and stamina that his work required. After his retirement from service he focused his efforts on technical education, women's education and Bengali literature.

The present volume brings out, within a short span, the life of a dedicated scientist during the dawning of western science in India in an almost provocative manner. In doing so, it whets our appetite for knowing more about the role of Sikdar and its significance in the history of Indian science. It is our hope that a more elaborate book will be written by Lahiri or others in the near future. Overall this is an important memoir, commendable in style and content and significant in unravelling the early stages of development of western science in India.